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REVIEW ON EFFECTS OF *TRIGONELLA FOENUM GRAECUM* ON DYSMENORRHEA

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ABSTRACT

Fenugreek *(Trigonella foenum- graecum*) commonly known as Methi, used in india as a traditional medicine for dysmenorrhea, diabetes, arthritis and lactation. Fenugreek is known for its medicinal qualities such as hypoglycemic, hypocholesterolemic, antioxidant, anticancer, antimicrobial, anti inflammatory,analgesic and immunological properties. Recent research revealed that fenugreek is a valuable medicinal plant of multipurpose use and used for the preparation of various products such as steroidal hormone etc. The crop grows well under rainfall conditions and hence cost of production is lower compared to other crop. India has remained the largest fenugreek harvesting area in the world. Due to the lack of side effects compared with synthetic drugs, approximately 60% of the world's population is dependent on the plants for medication. Natural products have been known to be effective therapies. The use of herbal medicines has been common for hundreds of years before pharmaceutical companies started operating, and in addition, many medicines have a herbal basis. Consumption of herbal supplements has been increased in the developed countries, especially the USA, at different age groups for various reasons. Traditional medicines like brewed herbs have been used to treat dysmenorrhea across the world. Dysmenorrhea is the most common gynecological complaint among adolescents and young adult females. It is the painful menstruation cramps in the lower abdomen that is often accomapanied by other symptoms including sweating, headache, nausea vomiting tremulousness before or during menstruation. Fenugreek have a important role in menstruation which can reduce the severity of dysmenorrhea by reducing the pain. In this review, the effects of *trigonella foenum graecum* on dysmennorrhea is discussed.

KEYWORDS: Fenugreek, Herbal medicine, Dysmenorrhea, Menstrual period.

INTRODUCTION

Plants are used medicinally in different countries and maintained as a source of many potent and powerful drugs. The World Health Organization (WHO) defines traditional medicinal plants as natural plant materials which are used at least or in the absence industrial processing for the treatment of diseases at a local or regional scale. Traditional herbal medicine has been used in developing and developed countries for thousands of years because it is natural and causes comparatively fewer complications.[1]

Trigonella foenum-graecum L plant is widely distributed throughout the world and which belongs to the family Fabacecae. Fenugreek is an annual legume, widely cultivated in most parts of the world for its medicinal value. Fenugreek leaves and seeds are consumed in different countries of the world for different purposes such as medicinal uses (anti-diabetic, lowering of blood sugar and cholesterol, anti-cancer, antimicrobial, etc.) for food control in grain warehouses, perfume industries and etc. Fenugreek can be a legume crop very useful for incorporation in a short-term rotation and for hay and silage for livestock feed, for nitrogen fixation in the soil and its fertility, etc. Its seeds are considered to be of commercial interest as a source of steroid diosgenin, which is important for the pharmaceutical industry. Nowadays, fenugreek is widely cultivated as a medicinal plant. Mucilaginous seeds are said to have many medicinal properties, such as a tonic, emollient, carminative, emollient, diuretic, astringent emmenagogue, expectorant, repairing, aphrodisiac and anthelmintic and have been used to treat mouth ulcers, chapped lips and stomach irritation Duke.[1]

Taxonomic Tree
Domain: Eukaryota
Kingdom: Plantae
Phylum: Spermatophyta
Subphylum: Angiospermae
Class: Dicotyledonae
Order: Fabales
Family: Fabaceae

Genus:Trigonella
Species: *Trigonella foenum graecum.*[2]

Chemical Constituents

Fenugreek contains a number of chemical constituents including protein, starch, neutral detergent fiber, ash, lipids. The biological and pharmacological actions of fenugreek are attributed to the variety of its constituents, Generally three important chemical constituents are present, such as steroidal sapogenins, galactomannans, isoleucins. Three main constituents of fenugreek are saponins , flavonoids and alkaloids . The bitter taste and specific smell of fenugreek is due to alkaloids and some other volatile compounds. Alkaloids such as Trigonelline, choline, carpine, Flavonoids such as Naringenin, lilyn kaempferol vecenin-1 ,tricin7-O-D, glucopyranoside saponaretin isovitexin ,isoorientin orientin, vitexin luteolin ,quercetin and saponins such as Fenugrin foenugracin glycoside yamogenin trigonoesides, smilagenin, gitagenin, sarasapogenin, yuccagenin, hederagin, diosgenin, trigonin, neotigogenin are mainly present. Due to the presence various active constituents fenugreek posess number of medicinal and pharmacological activities such as antidiabetic properties ,antioxidant antimicrobial actions,anticancer, anti inflammatory,antipyretic,analgesic,anti plasmodial, wound healing, anti fertility urotoxicity activity etc.[3]

Description

Fenugreek is an erect hairy annual of the bean family, reaching 30-60 cm. The plant grows to a height of about three feet, has three part leaves, the long slender stems bear tripartite, toothed, grey-green obovate leaves, 20-25 mm (3/4-1 in) long. *Trigonella foenum-graecum* has long stalked leaves up to 5 cm long stipules triangular, lanceolate, leaflets about 2.5 cms long, Mediterranean climates are most suitable. Plants mature in about four months. The flower in beak, hairy with 10-20 seeds.The flowering season for the herb fenugreek is generally midsummer. Fenugreek seeds are small (5 mm long), hard and brownish yellow, the color may vary. They are flattened and have a very characteristic rhomboid outline. Almost in the center of one of the long and narrow sides is a small depression in which the hilum and the micropyle are located, the first being distinctly visible as a whitish point; this depression continues in the form of a furrow extending diagonally over part of each of the adjacent sides, thus dividing the seed into two unequal lobes. . If the seed is cut in a direction transverse to the side where the hilum is located, so as to pass through the two lobes of the seed, we will find that the largest lobe contains two contiguous cotyledons - the smallest, the radical. Both are yellowish in color and surrounded by a darker, horny translucent endosperm that separates the radicle from the cotyledons. When soaked in water, the endosperm swells and produces mucilage in the surrounding fluid. Whole seeds macerated in hot water burst from their integument by the swelling of the mucilage and reveal the structure of the seed.[1]

Geographical Source

Fenugreek is an annual forage legume and a traditional spice crop that has been grown for centuries across the Indian subcontinent. In addition to South Asia the crop is also grown in some parts of North Africa, obovate to obanceolate. The root is a mass of fingery structures.Sissile axillary flowers are white or pale yellow. The thin sword-shaped pods measure 10 to 15 cm (4-6 in.), With a curved, beak-shaped tip, each bearing 10 to 20 seeds. The plant has a spicy odor that lingers on the hands after touching. There are wild and cultivated varieties. Flowers are 1-2, axillary, racemate, whitish or lemon yellow that bloom from June to July. Pod 5.7 cm long with a persistent beak, hairy with 10-20 seeds. Mild Middle East, Mediterranean Europe, China, South East Asia, Australia, the USA, Argentina and Canada. India is the largest fenugreek producer in the world but due to high internal consumption do not have a major share of the global fenugreek trade .The crop has been recommended for the dry and semiarid regions of Asia, Africa and Latin America. The plant has been used traditionally in Indian for several centuries.Fenugreek has a widespread adoption in industrial sectors. Its seeds contain a reliable source of steroid diosgenin, which acts as a supplement in pharmaceutical industry.It is a natural nitrogen fixer,so it could be easily incorporated in the local crop cycles . The crop grows well under rainfall conditions and hence cost of production is lower compared to other commercial crops. Fenugreek is also well known as a global spice crop grown in all the major continents (depending on soil and climatic conditions) across the globe including parts of North Africa, Mediterranean Europe, Russia, Middle East, China, India, Pakistan, Iran, Afghanistan, parts of East and south Asia, Australia, the USA, Canada and Argentin. India once maintained as largest fenugreek harvested area in the world.crop has been recommended for agricultural production in the dry and semiarid localities of the continents of Asia, Africa and America.[4]

In India, fenugreek is cultivated mainly in Rajasthan (around 80% of the national production), Gujarat, Uttaranchal, Uttar Pradesh, Madhya Pradesh, Maharashtra haryana and punjab. Diverse fenugreek genotypes are present in the world, differing in growth habits, morphology, seed quality and crop yield. Since fenugreek is a self-pollinating plant, breeders successfully developed varieties by using breeding techniques. Nowadays, fenugreek is used in various countries: as spice in Iran, for preparing flavor cheese in Switzerland, seed powder along with flour for making flat bread in Egypt, seedlings as vegetable in India and Pakistan. In Africa, people use fenugreek seeds as coffee-substitute, to control insect infestations in grain storages, in cosmetic industries and so on.[1]

Due to the lack of side effects compared with synthetic drugs, approximately 60% of the world's population is dependent almost entirely on plants for medication. Natural products have been known to be effective

therapies. Fenugreek *[Trigonella foenum-graecum*] is the most frequenly used herbal for dysmenorrhea.[4]

Dysmenorrhea

Dysmenorrhea is defined as the presence of painful cramps of uterine origin that occur during menstruation and represents one of the most common causes of pelvic pain and menstrual disorder. Dysmenorrhea is a common symptom secondary to various gynecological disorders, but it is also represented in most women as a primary form of disease. Pain associated with dysmenorrhea is caused by hypersecretion of prostaglandins and an increased uterine contractility.[6] There are 2 types of of dysmenorrhea Primary dysmenorrhea refers to pain with no obvious pathological pelvic disease and almost always first occurs in women 20 years or younger after their ovulatory cycles become established .The primary dysmenorrhea is quite frequent in young women and remains with a good prognosis. painful cramps of uterine origin that occur during menstruation and represents one of the most common causes of pelvic pain and menstrual disorder. Secondary dysmenorrhea is caused by underlying pelvic conditions or pathology and is more common in women older than 20 years. Dysmenorrhea is considered the most common symptom of all menstrual complaints and poses a greater burden of disease than any other gynecological complaint in developing countries. Among women of reproductive age worldwide, dysmenorrhea is more prevalent than the other 2 common types of chronic pelvic pain, namely, dyspareunia and noncyclical chronic pelvic pain . Being a debilitating condition for many women, it has a major impact on health-related quality life, work productivity, and health-care utilization.[7]

Symptoms of dysmenorrhea with the intensity of primary dysmenorrhea vary and each young person may experience the symptoms differently. The most common signs of dysmenorrheal are Cramping in the lower abdomen, Pain in the lower abdomen and/or lower back, Pain radiating down the legs, Nausea, vomiting, diarrhea, Weakness,Fainting Headaches etc

Causes

Menstrual cramps are caused by contractions (tightening) in the uterus by a chemical called prostaglandin. The uterus, where a baby grows, contracts throughout a woman's menstrual cycle. During menstruation, the uterus contracts more strongly. If the uterus contracts too strongly, it can press against nearby blood vessels, cutting off the supply of oxygen to the muscle tissue of the uterus. Pain results when part of the muscle briefly loses its supply of oxygen. Primary dysmenorrhea is the overproduction of uterine PGs and the enhanced release of PGs, allegedly from disintegrating cells during endometrial sloughing, is believed to cause myometrial hypercontractility, resulting in ischemia and hypoxia of the uterine muscle, and, ultimately, pai. PGs are ubiquitously distributed intracellular substances which are derived from long-chain polyunsaturated fatty acids, such as arachidonic acid, a common component of cell membrane phospholipids. PGs have been shown to have a range of biological effects on a wide variety of physiological as well as pathological activities including pain, inflammation, body temperature, a sleep regulation.[8]

Maincauses of secondary dysmenorrhea includes: Endometriosis -It is characterized by the presence of endometrial tissue (glands and stroma) outside the uterine cavity and is the most common cause of secondary dysmenorrhea The endometriosis prevalence is higher in adolescents withchronic pelvic pain resistant to treatment with OC pills and nonsteroidal anti-inflammatory drugs (NSAIDs).Adenomyosis -A condition where the lining of the uterus grows into the muscle of the uterus and presence of endometrial glands and stroma within the myometrium and is associated with dysmenorrhea and abnormal uterine bleeding (AUB). Adenomyosis is one of the most common causes of AUB. The diagnosis is usually confirmed through transvaginal ultrasonography and magneticresonance imaging. Via specific ultrasonographic criteria by bidimensional and tridimensional transvaginal ultrasound (morphological uterus sonographic assessment), the detection of adenomyosis features by imaging is accepted and the association with menstrual pain, heavy menstrual lbleeding, and infertility may facilitate the diagnosis of adenomyosis. Pelvic inflammatory disease - An infection caused by bacteria that starts in the uterus and can spread to other reproductive organs. Cervical stenosis -Narrowing of the opening to the uterus.Fibroids (benign tumors) Growths on the inner wall of the uterus.[6]

The cause of dysmenorrhea depends on whether the condition is primary or secondary.In general, people with primary dysmenorrhea experience uterine contractions as a result of a chemical imbalance in the body, particularly prostaglandin and arachidonic acid, chemicals which control the contractions of the uterus. Secondary dysmenorrhea is caused by other medical conditions, most often endometriosis, a condition in which tissue that looks and acts like endometrial tissue becomes implanted outside the uterus, usually on other reproductive organs and pelvic pain. Pelvic inflammatory disease (PID), Infection, tumors, or polyps in the pelvic cavity Uterine fibroids Abnormal pregnancy etc.

Treatment

The treatment options include non steroidal anti inflammatory drugs alone or combined with oral contraceptives or progestins. Alternative medicine include psychotherapy, yoga, hypnotherapy, massage, transcutaneous electrical nerve stimulation, vitamins and nutritional supplement. Non-pharmaceutical treatments include acupuncture and surgery. Herbal products or Medicine and diet supplyment are widely used, Herbal and dietary therapies are popular as they can be self administered and are available. This availability,

although helpful, can create problems with the control of dosage, quality, and drug interactions. Herbal and dietary supplements including thiamine, pyridoxine, magnesium, and fish oil may be effective in relieving pain, although some of these may be associated with adverse effects and also vitamin E was effective in treating dysmenorrhoea, but it advises caution in use owing to potential adverse effects when used in high doses. Many women believe that dysmenorrhea is a normal cycle of menstruation and does not need pharmacological treatment. Naturally occurring agents used to treat dysmenorrhea include herbal brews (eg., mint, chamomile, and oregano) the roots of plants (eg., carrots and turnips) and the petals of plants (marigold, hyacinth, and fenugreek) . In a study, 78% of the participants used the fenugreek, mint, and green tea among which fenugreek had been used more than the others. Fenugreek is an annual herb with medicinal properties and has been known as the oldest herbal medicine in Egypt and Greece. Today, new information has been achieved on the benefits and pharmacological effects of fenugreek on human wellbeing . Fenugreek plant is native to the West Asia and Iran . The Food and Drug Administration (FDA) in the USA lists it as being a generally recognized as safe (GRAS) plant. It has been utilized around the world for centuries. Fenugreek is added to ordinary foods of Indians, Egyptians, and Yemenis .Fenugreek [*Trigonella foenum-graecum* (Leguminosae)] is the most frequently used herbal galactagogue and is a member of the pea family.[9]

SimaYounesy, Sedigheh Amiraliakbari ,Somayeh Esmaeili, Hamid Alavimajd, SoheilaNouraei et al conducted a study about effects of fenugreek seeds on the severity and systemic symptoms of dysmenorrhea and a double-blind, randomized, placebo controlled trial investigation done, Unmarried Students were randomly assigned to two groups who received fenugreek (n = 51) or placebo (n = 50). For the first 3 days of menstruation, 2–3 capsules containing fenugreek seed powder (900 mg) were given to the subjects three times daily for two consecutive menstrual cycles. Pain severity was evaluated using a visual analog scale and systemic symptoms were assessed using a multidimensional verbal scale.

In the present study, pain duration in the intervention cycles was shorter in the fenugreek group ($p = 0.01$). Hence, fenugreek seems to be effective in reducing the duration of dysmenorrhea. Both groups exhibited a reduction in the severity of other symptoms associated with dysmenorrhea. However, in the placebo group, symptom alleviation was not significant except in the reduction of lack of energy ($p = 0.01$). Therefore, fenugreek may reduce dysmenorrhea-associated systemic symptoms (nausea, vomiting, lack of energy, headache, diarrhea, mood swings, syncope, and fatigue). The antihistaminic effect of fenugreek may reduce premenstrual symptoms. The effectiveness of fenugreek has been observed in dysmenorrhea, but not in temperament. The effects of fenugreek on systemic signs such as vomiting and anemia have also been reported. Anemia causes lack of energy and fatigue, and fenugreek leaves are a rich source of calcium, iron, β-carotene, and vitamins .One of the systemic symptoms associated with dysmenorrhea is headache, and fenugreek has been shown to alleviate this symptom. Women with dysmenorrhea suffer from increased uterine contractions It has been shown that fenugreek has therapeutic effects against diabetes, infertility, and fungal infections, and that it has analgesic, anti-inflammatory and antipyretic properties as well. The present study was the first to investigate the use of fenugreek in the treatment of dysmenorrhea. Studies have shown that fenugreek seed has been used for controlling dysmenorrhea and mastalgia.

In USA, fenugreek has been used for the treatment of post-menopausal vaginal dryness and dysmenorrhea since the nineteenth century. The anti-spasmodic effect of fenugreek on gastrointestinal system has been recognized and this may justify its effectiveness in dysmenorrhea. Moreover, diuretic property of the fenugreek decreases pelvic hyperemia and this property may explain the effectiveness of fenugreek in dysmenorrhea and reduction of mastalgia The chronic analgesic effect of the fenugreek extract was observed and studies have shown that fenugreek seed reduced the pain through serotonergic system Anti-inflammatory, antipyretic and anti-anxiety effects of leaf extracts of fenugreek were proved in animal models. Phytochemical studies have revealed that alkaloids, glycosides, and phenols are the major components in fenugreek extracts. Although the existence of anti-inflammatory, analgesic and antipyretic effects in extracts suggests a NSAID-like mechanism, presence of alkaloids as well as the absence of flavonoids, saponins and steroids does not. Therefore, the alkaloid compounds in the extracts may have several effects. Phytoestrogens are herbal compounds with estrogenic activity; fenugreek contains phytoestrogen compounds. Compared to dexamethasone and ibuprofen, the fenugreek has showed similar anti-inflammatory effects. Diosgenin in fenugreek is a steroidal sapogenin and is one of the compounds of fenugreek extract which acts as cortisone, and consequently, reduces anxiety.

In the present study, no complication was reported with regard to fenugreek consumption. Very mild effects and side effects of fenugreek have been introduced. The existent evidence proves the non-toxicity of the aqueous extract of fenugreek. No nutritional response has been observed in studies related to fenugreek. This plant contains nontoxic mucilage, alkaloid, and sugar and has not shown any specific side effect. One of the studies showed side effects like allergic reactions, but no hematological toxicity. The effectiveness of fenugreek in symptoms of dysmenorrhea and its harmlessness have been observed. The present study showed that fenugreek reduced the severity of primary dysmenorrhea. Given that adverse effects were not reported for fenugreek, the

herb can be administered safely for the management of this condition.[5]

Arezoo Moini Jazani, Kobra Hamdi, Mojgan Tansaz, Hossein Nazemiyeh, Homayoun Sadeghi Bazargani, Seyed Mohammad Bagher Fazljou and Ramin Nasimi DoostAzgomi et al conducted a study about herbal medicine for olimenorrhea and aminorrhea Menstrual bleeding cessation is one of the most frequent gynecologic disorders among women in reproductive age. The treatment is based on hormone therapy. Due to the increasing request for alternative medicine remedies in the field of women's diseases, this study tried to overview medicinal plants used to treat oligomenorrhea and amenorrhea according to the pharmaceutical textbooks of traditional Persian medicine (TPM) and review the evidence in the conventional medicine Methods. This systematic review was designed and performed in 2017 in order to gather information regarding herbal medications of oligomenorrhea and amenorrhea in TPM and conventional medicine. This study had several steps as searching Iranian traditional medicine literature and extracting the emmenagogue plants, classifying the plants, searching the electronic databases, and finding evidences. To search traditional Persian medicine references, Noor digital library was used, which includes several ancient traditional medical references. The classification of plants was done based on the repetition and potency of the plants in the ancient literatures. In present study of all 198 emmenagogue medicinal plants found in TPM, 87 cases were specified to be more effective in treating oligomenorrhea and amenorrhea. In second part of present study, where a search of conventional medicine was performed, 12 studies were found, which had 8 plants investigated: *Vitex agnus-castus, Trigonella foenum graecum, Foeniculum vulgare, Cinnamomum verum, Paeonia lactiflora, Sesamum indicum, Mentha longifolia, and Urtica dioica*. Traditional Persian medicine has proposed many different medicinal plants for treatment of oligomenorrhea and amenorrhea. Although just few plants have been proven to be effective for treatment of menstrual irregularities, the results and the classification in present study can be used as an outline for future studies and treatments.[10]

Wajida Inanmdar, Arshiya sultana, umraz mubeen, khaleequr rahman et al determine the efficacy and safety of fenugreek seed and dry cupping on intensity of pain in primary dysmenorrhea.in this Sixty patients with primary dysmenorrhea were enrolled in thisprospective, open-labeled, randomized, standard-controlled study, conducted in the National Institute of UnaniMedicine Hospital between February 2010 and April 2011. The reduction in menstrual pain intensity was measured with well validated Visual Analogue he same protocol. The reduction in menstrual pain intensity was measured with well validated Visual Analogue.Scale and safety of fenugreek seed was evaluated by clinical examination and laboratory investigations.Fenugreek seed and dry cupping are efficacious, safe, cost effective, and well tolerated.[11]

Courtney Mayszak et al studied about how can reduce menstrual cramp and relieve dysmenorrhea .It's estimated that between 45% and 95% of women experience dysmenorrhea1. Dysmenorrhea hinders the quality of life and productivity of 60% to 90% of females in Western countries rarely uses non-steroidal anti-inflammatory drugs (also know as NSAIDs, such as aspirin, Ibuprofen, and Advil) to manage their period pain. However, these drugs have only been around for the last 100 or so years.Herbal medicines have been common for thousands of years, long before pharmaceutical companies began making synthetic drugs. Because natural products are known to be effective, many modern pharmaceuticals have an herbal basis. Approximately 60% of the world's population is dependent almost entirely on plants as medication for all health problems, including menstrual disorders.This study reviels the fenugreek action against pain in dysmenorrhea.[12]

R. Kalpana, S. Rajeswari, S.J.Nalini, Shini Varghese et al study was to assess the effectiveness of *Trigonellafoenum-graecum* seeds (fenugreek) on menstrual distress among adolescent girls with dysmenorrhea at selected colleges, Chennai. The research design adopted for the study was quasi- pretest and posttest control group design. The samples were selected using convenience sampling technique. The data was collected using menstrual distress questionnaire. Pretest was conducted on the day of dysmenorrhea. Intervention was 5 gms of raw *Trigonellafoenum-graecum* seeds with lukewarm water were given to adolescent girls on the day of dysmenorrhea by the investigator for the study group and routine practices were followed in control group. Posttest was conducted after 2 hr. Data was analysed using descriptive and inferential statistics. A significant difference found between pretest and posttest on severity on menstrual distress among adolescent girls at $p<0.001$. Thus the study findings showed that *Trigonella foenum graecum* seeds are effective in decreasing the severity of menstrual distress among adolescent girls with dysmenorrhea.[13]

Shreelakshmidevi singaravelu, Jaikumar Sankarapillai, Abilash Sasidaran Chandrakumari ,pummy sinha et al conducted a study on effect of fenugreek extract in experimentally induced gastric ulcer in wistar rats and the gastro-protective role of Fenugreek seeds are yet to be explored.The main Objectives of this study to evaluate the effect of Fenugreek seed extract in Indomethacin induced gastric ulcer models. The study was done in Albino wistar rats were divided into five groups with eight animals in each. Gastric ulcer was induced using Indomethacin 20 mg/Kg. Fenugreek at dose of 200mg/Kg and 400mg/Kg was administered to group III, IV and group V received Rantidine 30mg/Kg.

Ulcer index, volume of gastric juice and acidity was estimated. To study the anti-oxidant property the level of catalase, SOD, GST and T. Bars were done. Results: Fenugreek treated group III showed a significant decrease in ulcer index, volume of gastric juice and acidity when compared to control positive group II. Oxidative enzyme study indicated a significant increase in Catalase, SOD and GSH value in treated group when compared with control positive group II and significant decrease in T. Bars value in treated group and concluded as Fenugreek seed extract has both gastro-protective and Anti-oxidant property.[14]

R SujaPandian, C.V Anuradha, P. Vishwanathan et al compared fenugreek with omeprazole and the study conducted on ethanol induced gastric ulcer. The aqueous extract and a gel fraction isolated from the seeds showed significant ulcer protective effects. The cytoprotective effect of the seeds seemed to be not only due to the anti-secretory action but also to the effects on mucosal glycoproteins. The fenugreek seeds also prevented the rise in lipid peroxidation induced by ethanol presumably by enhancing antioxidant potential of the gastric mucosa thereby lowering mucosal injury. Histological studies revealed that the soluble gel fraction derived from the seeds was more effective than omeprazole in preventing lesion formation. These observations show that fenugreek seeds possess antiulcer potential.[15]

CONCLUSION

The significance of medicinal plants in human health cannot be overlooked.The demand for medicinal plants are increasing day by day. They are using several conditions for human health managements,medicinal plants have played a vital role which has led to the growth in alternative medicines and therapeutic uses of plants. *Trigonella foenum graecum* has one of the plant having greater medicinal properties such as Antidiabetic Antipyretic Anticancer Antioxidant, Antifertility Immunologicalactivity, Activity on digestion ,Utilization in various food products Traditional food and for prevention of dysmenorrhea .Lot of pharmacological studies has been carried out with extract of the different parts of the plant. Based on some evidence on the characteristic of fenugreek which reduce the severity of dysmenorrhea disease. Dysmennorrhea the medical term for period pain is the common gyneacological disorder in women with menstruate. The whole plant are known to contain medicinally active constituents.Due to its medicinal properties there is enormous scope for future research and more pharmacological ,phytochemical investigation and clinical research should be conducted to investigate the properties of the plant for discovery of new drugs.

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